

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Rulemaking to Develop an
Electricity Integrated Resource Planning
Framework and to Coordinate and Refine
Long-Term Procurement Planning
Requirements.

Rulemaking 16-02-007
(Filed February 11, 2016)

**REPLY COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION**

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**COMMENTS OF THE CALIFORNIA INDEPENDENT SYSTEM
OPERATOR CORPORATION**

I. Introduction

The California Independent System Operator Corporation (CAISO) hereby provides reply comments in response to the November 29, 2018 *Administrative Law Judge’s Ruling Seeking Comments on Inputs and Assumptions for Development of the 2019-2020 Reference System Plan* (November 29 Ruling) and *Attachments A* (Attachment A) and *B thereto*, issued in this proceeding. The CAISO appreciates the opportunity to provide reply comments.

II. Discussion

The CAISO provides reply comments on two key issues: (1) the need to recognize local capacity requirements in the integrated resource plan (IRP) RESOLVE modeling and (2) requests to study an alternative base case with inputs and assumptions from the California Energy Commission’s (CEC) *Deep Decarbonization in a High Renewables Future* (Decarbonization Study).

A. RESOLVE Modeling Should Incorporate Local Capacity Requirements.

The CAISO agrees with comments urging the Commission to increase the RESOLVE modeling capabilities to recognize minimum local capacity requirements. Specifically, Pacific Gas & Electric (PG&E) discussed more detailed economic retirement modeling and recommended that “the Commission, working with the CAISO, provide additional insights on how local capacity needs are captured in the IRP modeling framework (*e.g.*, via a workshop or a Modeling Advisory Group (MAG) webinar).”¹ The CAISO agrees that local capacity needs

¹ PG&E Opening Comments, p. 4.

should be reflected in the RESOLVE modeling because the IRP should maintain resource adequacy on in both the system and in local areas.

B. The Commission Should Study a Deep Decarbonization Scenario and Plan for Long-Lead Time Resources.

In opening comments, many parties recommended using inputs and assumptions from the CEC’s Decarbonization Study. Southern California Edison Company (SCE) specifically recommends that the Commission include inputs and assumptions from the Decarbonization Study’s *High Electrification* scenario for an alternative base case. SCE notes that the “future electric system must be studied now, in conjunction with potential natural gas plant retirement analyses, to allow California to identify and guide the necessary resource and transmission investments to reliably and affordably decarbonize the electric sector.”² The CAISO agrees and supports SCE’s proposal to use the *High Electrification* scenario from the Decarbonization Study to develop an alternative base case.

In addition, the CAISO recommends that the Commission use the deep decarbonization alternative base case to identify the potential need for long-lead time or high capital cost resources (*e.g.*, large-scale pumped hydro storage, out-of-state wind, or geothermal resources). The IRP should begin identifying and directing procurement of market resources that can help meet the greenhouse-gas emissions reductions required by Senate Bill 100. The IRP is the most suitable forum to optimize the resource portfolio to meet the Senate Bill 100 goals while limiting costs and maintaining system resource adequacy. As a result, the CAISO recommends that the Commission both study a deep decarbonization alternative base case and consider procurement for long-lead time or high capital cost resources that are supported by the alternative base case.

² SCE Opening Comments, p. 4.

III. Conclusion

The CAISO appreciates this opportunity to provide reply comments on the IRP inputs and assumptions and looks forward to working with the Commission to further refine the IRP modeling to address planning and procurement needs.

Respectfully submitted,

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